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ABSTRACT

This unit of instruction deals primarily with environmental influence. The course includes instruction on communicable diseases, prevention of diseases, and the optimal environment (pure food, water, air, waste disposal methods, pesticides, radioactivity, and the effects the laws governing each one have on human life). No requisite for prior course work or special skills knowledge are required for enrollment. The booklet lists the goals, specific block objectives, and a bibliography for the course. A quinmester posttest is included. (BB)

ED 093612

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AUTHORIZED COURSE OF INSTRUCTION FOR THE QUINMESTER PROGRAM

DADE COUNTY PUBLIC SCHOOLS

Course Outline
HEALTH SERVICE AIDE - 3040
(Human Ecology and the Health Dangers)
Department 48 - Quin 3040.03

(3607.03)

E 017 060

DIVISION OF INSTRUCTION-1973

ED 093612

DADE COUNTY PUBLIC SCHOOLS
1450 NORTHEAST SECOND AVENUE
MIAMI, FLORIDA 33132

Course Outline

HEALTH SERVICE AIDE - 3040
[Human Ecology And The Health Dangers]

Department 48 - Quin 3040.03

county office of
VOCATIONAL AND ADULT EDUCATION

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Miami, Florida 33132

December, 1972

Published by the School Board of Dade County

Course Description

3040	48	3040.04	Human Ecology And The Health Dangers
State Category Number	County Dept. Number	County Course Number	Course Title

This course outline includes communicable diseases, prevention of diseases, and the optimal environment (pure food, water, air, waste disposal methods, pesticides, radioactivity, and the effects the laws governing each one have on our lives.)

Indicators of Success: There are no special skills knowledge necessary before entering this course.

Clock Hours: 45

PREFACE

The following quinmester course outline entitled Human Ecology and The Health Dangers has been prepared to acquaint the student with communicable diseases and the optimal environment. Pure food, water, air waste disposal methods, pesticides, radioactivity and the effects of the laws governing each one has on our lives will also be included.

The unit opens with a study of organisms which produce infections. This knowledge is essential in understanding the manner in which infectious diseases are spread. Following a survey of pathogenic microorganisms and parasites, the study continues with an exploration of the nature of infections and specific ways in which pathogenic organisms damage the body. Chronic and disabling diseases discusses several of the unsolved medical problems today. Knowledge of such chronic disorders as heart and bloodvessel disease, cancer, diabetes, and arthritic conditions is especially important in patient understanding in dealing with the problems.

The community, state and national health programs are extremely important in dealing with infectious and chronic diseases. The student should become familiar with the benefits he receives from these programs and the privileges he derives from living in a nation with advanced public health standards. He should be made aware, also, of his personal responsibility for the health standards of his community.

The material for this course is organized into five blocks and covers a period of forty-five classroom hours, or one quinmester. Students attend one class period each day, five days a week.

The classroom instruction will include lectures, demonstrations and field trips. Student involvement will be stressed through the use of audiovisual materials, individual independent study, and creative pupil contributions. All students currently enrolled in the eleventh grade will be eligible for admittance to the program.

This outline was developed through the cooperative efforts of the instructional and supervisory personnel, the Quinmester Advisory Committee, and the Vocational Curriculum Materials Service, and has been approved by the Dade County Vocational Curriculum Committee.

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with Suggested Hourly Breakdown

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Metabolic and Circulatory Disease	2
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Cancer	2
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GOALS

The student must be able to demonstrate:

1. An understanding of the need for some means of controlling and preventing diseases in our community.

2. An understanding of the benefits received from the health programs and the privileges he derives from living in a nation with advanced public health standards.

3. An understanding of the chronic diseases and knowledge which may lead to early detection and management of today's great killing diseases.

4. Awareness of public health problems and programs in their community.

SPECIFIC BLOCK OBJECTIVES

BLOCK I - DISEASE: CAUSES AND DEFENSES

The student must be able to:

1. Demonstrate an understanding of bacteria as microorganisms and causative agents of disease.
2. Explain the nature of viruses and the manner in which they invade and destroy living cells.
3. Name the better-known virus diseases and explain the manner in which they are classified on the basis of tissue attacked.
4. Demonstrate an awareness of ways in which infectious diseases are spread.
5. Explain the mechanism of structural, cellular and chemical defenses against disease.
6. Differentiate between active and passive immunity.

BLOCK II - DISEASES OF YOUTH

The student must be able to:

1. List and describe the common infectious respiratory diseases.
2. List the symptoms of infectious mononucleosis, infectious hepatitis, Syphillis and Gonorrhea.
3. Explain the symptoms and causes of Diabetic mellitus.
4. Name several causes of anemia.

BLOCK III - DISEASES OF ADULTS

The student must be able to:

1. Describe the nature and extent of common cardiovascular diseases.
2. Explain the nature of frequency, locations, possible treatment, and cure for cancer.
3. Name the seven warning signs of cancer.
4. Demonstrate an awareness of the need for patient knowledge and cooperation in dealing with chronic diseases.
5. List and describe the common disabling diseases of adults.

BLOCK IV - DISEASES TRANSMITTED BY ANIMALS

The student must be able to:

1. Describe the four basic procedures to be followed when the bite of a possible rabid animal has broken the skin.
2. Explain the sanitation measures to be observed in the prevention of diseases transmitted by farm animals.

Course Outline

HEALTH SERVICE AIDE - 3040
(Human Ecology And The Health Dangers)

Department 48 - Quin 3040.03

I. DISEASE: CAUSE AND DEFENSES

A. Causes of Disease
1. Micro-Organisms
a. Bacteria
b. Viruses
c. Rickettsiae
d. Protozoa
e. Fungi
2. Other Pathogens (Parasitic Worms)

B. Spread of Infectious Diseases
1. Airborne
2. Droplet
3. Waterborne
4. Food Borne
5. Direct and Indirect contact
6. Insect borne diseases

C. Defenses Against Disease
1. Structural
a. The skin
b. Orifices
c. Membranes
d. Tears
e. Stomach acids
2. Cellular Defenses
a. Tissue Cells
b. White Corpuscles
3. Chemical Defenses
a. Antibodies
(1) Acquired Immunity
(2) Natural Immunity
b. Immunizations
c. Antibotics

II. DISEASES OF YOUTH

A. Common Infectious Respiratory Diseases
1. Common Cold
2. Influenza
3. Pneumonia
4. Tuberculosis

B. Other Infectious Diseases
   1. Infectious Mononucleosis
   2. Infectious Hepatitis
   3. Polio
   4. Dysentary
   5. Venereal Disease

C. Psychosomatic and Nervous Disorders
   1. Asthma
   2. Ulcerative Colites
   3. Epilepsy
   4. Multiple Sclerosis

D. Metabolic and Circulatory Disease
   1. Diabetes
   2. Rheumatic Fever
   3. Congential Heart Disease
   4. Anemia

III. DISEASE OF ADULTS

A. Cardiovascular Diseases
   1. Arterio Sclerosis
   2. Coronary Thrombosis
   3. Hypertension
   4. Heart Failure
   5. Stroke

B. Cancer

C. Disabling Diseases
   1. Arthritis
   2. Ulcer
   3. Glaucoma and Cataracts
   4. Hearing
   5. Parkinson Disease

IV. DISEASES TRANSMITTED BY ANIMALS

A. Disease carried by Domestic Animals
   1. Cat-scratch Fever
   2. Rabies
   3. Ringworm

B. Diseases carried by other Pets
   1. Psittacosis
   2. Rat-bite Fever

C. Wild and Farm Animals
   1. Brucellosis
   2. Leptospirosis
   3. Q-Fever
   4. Bovine T. B.
   5. Anthrax

D. Insects and Ticks
   1. Malaria
   2. Rocky Mountain Spotted Fever
   3. Encephalitis

V. PUBLIC HEALTH

A. Health Agencies
   1. State Health Department
      a. Legal powers
      b. Responsibilities
      c. Location
   2. Local Health Department (County)
      a. Legal status
      b. Responsibility
   3. Federal Government (H.E.W.)
      a. Food and Drug Administration
      b. Bureau of Animal Industry
   4. National Health Service (W.H.O.)
   5. Other Health Agencies--National Health Council

B. Quackery

C. Environmental Services
   1. Radiation Hazards
      a. Effects on body
      b. Contamination
      c. Present hazards
      d. Precautions
   2. Pollution
      a. Water Pollution
         (1) Definition
         (2) Problems
      b. Waste Disposal
         (1) Sewage
         (2) Refuse
            (a) Open dump
            (b) Incinerator
            (c) Sanitary Landfill
      c. Air Pollution
   3. Pesticides

VI. QUINMESTER POST-TEST

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APPENDIX

Quinmester Post-Test Samples

6/7/8

QUINMESTER POST-TEST

Name_____ Date_____ Score_____

I. MULTIPLE CHOICE

1. The inhalation of high concentrations of radioactive dust particles is (a) likely to result in serious illness (b) good for tuberculosis (c) usually harmless (d) likely to raise body resistance.

2. An understanding of the principles of protection depends upon our knowledge of the properties of radioactive (a) concrete (b) steel (c) earth (d) particles.

3. Where fallout is light, it is probable that the washing of harvested apples will make them (a) safe to eat (b) radioactive (c) poisonous (d) ripen faster.

4. All bacteria are (a) pathogenic (b) germs (c) bacilli (d) one-celled plants.

5. A heart murmur, caused by a thickened heart valve, is an example of the type of disease called (a) organic (b) contagious (c) inorganic (d) infectious.

6. Viruses (a) produce the same diseases as bacteria (b) are smaller than bacteria (c) are easy to study under a light microscope (d) show no signs of life.

7. The virus that causes yellow fever can enter the body through the bite of a (a) housefly (b) mad dog (c) mosquito (d) bedbug.

8. Typhoid germs harm the body by their production of (a) immune serum (b) antibodies (c) toxins (d) antitoxins.

9. Endemic diseases are (a) worldwide (b) countrywide (c) harmless (d) characteristic of a limited geographic area.

10. Natural immunity is (a) inborn (b) acquired (c) active (d) passive.

11. The use of antibiotics to treat infectious diseases is advisable because antibiotics (a) treat the symptoms (b) destroy the causative organism (c) allow the disease to run its course (d) relieve pain.

12. Disease is (a) a change in the normal functioning of the body (b) a permanent feeling of annoyance (c) discomfort (d) always accompanied by a rise in temperature.

13. Antigens stimulate the body to produce (a) antibodies (b) toxins (c) antibiotics (d) toxiods.

14. The body's first barrier to disease germs is the (a) blood (b) pores (c) stomach (d) skin.

15. Pathogenic bacteria (a) are harmless (b) cause diseases (c) are always present in soil (d) cause decay of foods.

16. Acute diseases are distinguished by (a) suddenness of onset and long duration (b) indefinite symptoms (c) severe symptoms of short duration (d) ease of transmission.

17. Active immunity is usually (a) of short duration (b) of long duration (c) provided for active people (d) provided by antibiotics

18. The germ that causes dysentery usually enters the body through the (a) skin (b) eyes (c) feet (d) mouth.

19. Ulcers are most frequently found among (a) Eskimos (b) women (c) men (d) children.

20. Deaths from Heart disease are usually associated with (a) Hardening of blood vessels (b) hardening of the brain (c) cancer (d) mental diseases.

21. A sign of aging is an increase in (a) the size of body cells (b) the drying of the skin (c) metabolism (d) digestive efficiency.

22. Tranquilizers are used to (a) relieve pain (b) relieve electric shock (c) relieve tension (d) stimulate the kidneys.

23. The science of geriatrics studies and treats (a) prenatal care (b) the diseases of old age (c) the health of the young (d) the deseases of infancy.

24. Insulin shock may be used to treat (a) diabetes (b) arthritis (c) insomnia (d) schizophrenia.

25. The leading cause of death in the United States is (a) heart and blood vessel diseases (b) diabetes (c) cancer (d) rheumatism.

26. There has been a constant increase in deaths from (a) typhoid fever (b) arthritis (c) rheumatism (d) cancer.

27. One of the Seven Danger Signals of cancer is (a) loss of hair (b) a wart (c) a sore that does not heal (d) excessive growth of hair.

28. The United States Public Health Service can order that a ship arriving from a disease-stricken area (a) report to the U. N. (b) be banned from interstate commerce (c) be adulterated (d) be quarantined.

29. The Federal Food, Drug and Cosmetic Act applies to preparations sold in (a) international trade (b) only one city (c) only one state (d) interstate trade.

30. Child Health clinics are usually maintained by (a) a Bureau of Vital Statistics (b) the United States Department of Health, Education and Welfare (c) a State Health Department (d) the National Science Foundation.

31. A City Health Department collects vital statistics to (a) supply data for newspapers (b) control interstate epidemics (c) determine and promote the health of the community (d) control international pandemics.

32. WHO helps solve the health problems of (a) all nations (b) Western Nations (c) ships at sea (d) underprivileged nations.

33. The fundamental obligation of a County Health Department is (a) sanitation (b) weather forecasts (c) therapeutic treatment (d) limited by the courts.

34. Voluntary health agencies are (a) discouraged by the government (b) only concerned with specific disasters (c) active in disseminating health information (d) financed by the government.

35. Whenever only one individual of a group becomes sick after eating a particular food, it usually means that the (a) food was contaminated by bacteria (b) victim may have an allergy (c) food had not been refrigerated (d) victim should use a cathartic.

36. Water from a private well (a) should be considered fit to drink (b) is unfit to drink (c) is always clear (d) should be tested before being used for drinking.

37. Refuse is the term applied to (a) garbage (b) rubbish (c) sewage (d) all wastes exclusive to sewage.

38. Many large cities safely dispose of refuse by (a) selling it for fertilizer (b) filling low-lying land (c) dumping it near bathing beaches (d) dumping it into rivers.

39. The presence of colon bacilli in a reservior is (a) an indication of contamination (b) a sign of purity (c) harmless (d) a means of purification.

40. Among water-borne diseases are (a) typhoid fever and malaria (b) malaria and yellow fever (c) cholera and typhoid fever (d) rabies and cholera.

QUINMESTER POST-TEST

Name_____ Date_____ Score_____

II. COMPLETION

1. Civil Defense instructions are broadcast to the public over the radio by a system called _____.

2. A steady siren for three to five minutes is called the _____ signal.

3. A person who has resistance to a disease is said to be _____.

4. Chemicals that prevent or slow the growth of bacteria without killing them are called _____.

5. The practice of separating people with serious contagious diseases from healthy people is called _____.

6. Inoculation with diptheria antitoxin helps produce _____ acquired immunity.

7. Diseases transmitted from one person to another are said to be _____ _____.

8. When a disease, such as diptheria, simultaneously effects a large number of people in a city, the disease is said to be _____.

9. Active _____immunity can be the result of recovery from a germ disease.

10. Toxoids are _____ that have been weakened by heat or chemical treatment.

11. _____ is called the "Father of Bacteriology".

12. _____ is a disease that can develop after the victim has been bitten by an infected dog.

13. A rickittqial disease transmitted by ticks is _____.

14. A roundworm disease transmitted by infected pork is _____.

15. A flatworm parasite of man is the _____.

16. To avoid tularemia, wild _____ should be handled with rubber gloves.

17. _____ or _____ and personal cleanliness are good preventatives against typhus fever.

18. The spread of yellow fever can be checked by controlling _____.

19. Advertised claims for quick cancer cures are attributable to _____ doctors.

20. Groundwater that has seeped through clean _____ soil is usually safe for household use.

21. The collection and disposal of domestic and industrial wastes is taken care of by the _____ system.

22. Sewage can be made safe enough to flow into streams if the sewage has been treated by bacterial decomposition, filtration, aeration, and _____.

23. Pollution of water indicates the mixture of water with _____.

24. Diarrhea and dysentary are diseases that have decreased in frequency in young children due to the use of _____ milk.

25. _____ milk is produced in dairies regularly inspected by a group of doctors.

QUINMESTER POST-TEST

Name_____ Date_____ Score _____

III. TRUE-FALSE

_____ 1. A person may be a carrier of a disease without ever having been affected by the disease.

_____ 2. The control of diseases by the immunization of individual is an effective means of protecting the health of a community.

_____ 3. Some vaccines are prepared from killed or weakened bacteria or viruses.

_____ 4. Penicillin was discovered by Selmon Waksmon.

_____ 5. Lymph and food are agents that can spread cancer to many parts of the body.

_____ 6. Cancer is not contagious.

_____ 7. Heart disease and high blood pressure occur more frequently in the age group under 45.

_____ 8. Cancer can be cured if it is diagnosed early enough.

_____ 9. Tapeworm infection can be contracted by contact with soiled bedding.

_____ 10. Vaccines are not available for the prevention of trichinosis.

ANSWER KEY TO QUINMESTER POST-TESTS

I. MULTIPLE CHOICE

1.	a	21.	b
2.	d	22.	c
3.	a	23.	b
4.	d	24.	d
5.	a	25.	a
6.	b	26.	d
7.	c	27.	c
8.	c	28.	d
9.	d	29.	d
10.	a	30.	c
11.	b	31.	c
12.	a	32.	a
13.	a	33.	a
14.	d	34.	c
15.	b	35.	b
16.	c	36.	d
17.	b	37.	d
18.	d	38.	b
19.	c	39.	a
20.	a	40.	c

II. COMPLETION

1. CONELRAD
2. Alert
3. immune
4. Antiseptic

5. isolation
6. passive
7. contagious or communicable
8. epidemic
9. Acquired
10. bacteria
11. Robert Kock
12. rabies
13. Rocky Mountain Spotted Fever
14. trichonisis
15. Tapeworm
16. Rabbits
17. Rat Control, vaccination
18. Mosquitoes
19. Quack
20. porous
21. sewage
22. clorination
23. dirty, putrefying material or sewage
24. pasteurized
25. certified Milk-Raw

III. TRUE AND FALSE

1. True
2. True
3. True
4. False
5. False
6. True
7. False
8. True
9. False
10. True